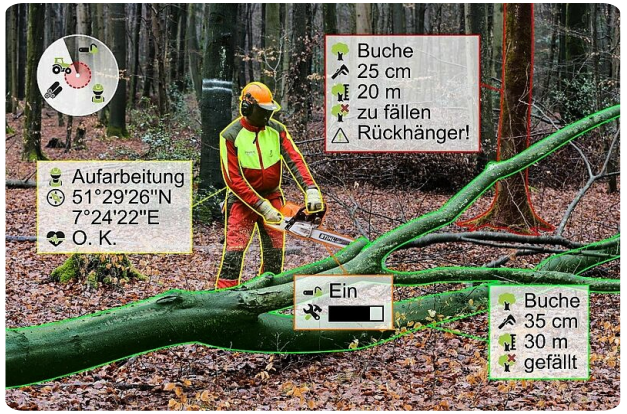
KWH4.0 | Center of Excellence for Forestry 4.0



Forest and Wood 4.0 - the forest cluster becomes smart

The Center of Excellence for Forestry 4.0 is developing Industry 4.0 digitalization concepts for the forest and wood cluster. The driving force behind this approach is a closely cooperating working group of companies, research centers and the Forestry Education Center North-Rhine Westphalia as a practical testbed.New, intelligent and decentrally acting machines, devices, services and people, will enable the cluster to optimize its complex value-added networks, develop new business models and meet current challenges from ecology, economy and climate change. Existing approaches address the complexity of structures and processes, and the conflicting demands on forest management only insufficiently. To "smartify" the forest and wood cluster, existing competencies from industry, science and administration must be bundled: The goal of KWH4.0 is to create a know-how base and infrastructures, and to implement forest and wood 4.0 components via innovative Smart Forest Labs. The Smart Forest Labs serve as experimental forestry laboratories in which developed components, systems and processes are tested, standardization advanced, concepts disseminated, and actors trained. Developed concepts and standards are continuously published as practical recommendations, a first version of the communication infrastructure S3I (Internet of Things application) has been established. In addition, there is an increasingly smart fleet: forestry machines have been upgraded to retrieve digital information (GPS position, fuel consumption, production data, etc.) and at the same time networked via alternative radio standards with machines in regions where mobile communication is not possible.

DETALII

SURSA DE LEMN
--

TIPUL DE LEMN
--

TIPUL DE LEMN ÎN CAUZă
--

IMPACTUL ASUPRA MEDIULUI ȘI BIODIVERSITăȚII
Other solutions from the KWH4.0 network address sensor-supported forest monitoring in order to increase resilience against climate change.

EFECT ASUPRA VENITURILOR
--

POTENȚIAL DE EXPLOATARE
--

HUB
Hub central-vestic

IMPACT ECONOMIC
--

POTENȚIALUL DE MOBILIZARE
High, the KWH4.0 as a competence hub supports a wide range of projects and digital solutions, which in turn support wood mobilization.

POTENȚIAL DE SUSTENABILITATE - VALOARE
Foarte pozitiv

FACILITATEA DE IMPLEMENTARE
The KWH4.0 has received ERDF funding to start working. A challenge can be the core collaboration from both sides, forestry and ICT, needed to kick off activities.

FACILITATEA DE IMPLEMENTARE - EVALUARE
--

CONDIȚII CHEIE PREALABILE
--

TIPUL DE EVENIMENT LA CARE A FOST PREZENTAT ACEST IPB
Vizita de studiu (T2.3)

EFECT ASUPRA LOCURILOR DE MUNCă
--

COSTURI PENTRU IMPLEMENTARE (EURO - €)
--

CUNOȘTINȚE SPECIFICE NECESARE

--

MAI MULTE DETALII

PROVOCARE ABORDATă

5. Îmbunătățirea performanțelor economice și de mediu ale lanțurilor de aprovizionare cu păduri

DOMAIN

Managementul inovației, hub-uri digitale, clustere, exploatare (transversală)

TIP DE SOLUțIE

Modelare, DSS, simulare, optimizare

CUVINTE CHEIE

--

SOLUțIE DIGITALă

Da

INOVAțIE

Da

ȚARA DE ORIGINE

Germania

SCARA DE APLICARE

Regional/ sub-național

ANUL DE îNCEPUT șI DE SFâRșIT

--

DATE DE CONTACT

PROPRIETAR SAU AUTOR

RIF Institut für Forschung und Transfer e.V.

Frank Heinze

info@kwh40.de

REPORTER

FBZ

Marie-Charlotte Hoffmann, Elke Hübner-Tennhoff

marie-charlotte.hoffmann@wald-und-holz.nrw.de

REFERENCES AND RESOURCES

PAGINă WEB

https://www.kwh40.de/

WEBSITE PROJECT

--

REFERINță PROIECT

--

RESURSE

--

PROIECTUL îN CADRUL CăRUIA A FOST CREATă ACEASTă FIșă INFORMATIVă

Rosewood 4.0

DATA POSTăRII

11 Aug 2021

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 862681

A TOOL FROM ROSEWOOD 4.0, DESIGNED AND DEVELOPED BY